

GPS/SMS/GPRS
CAR ALARM&TRACKING SYSTEM

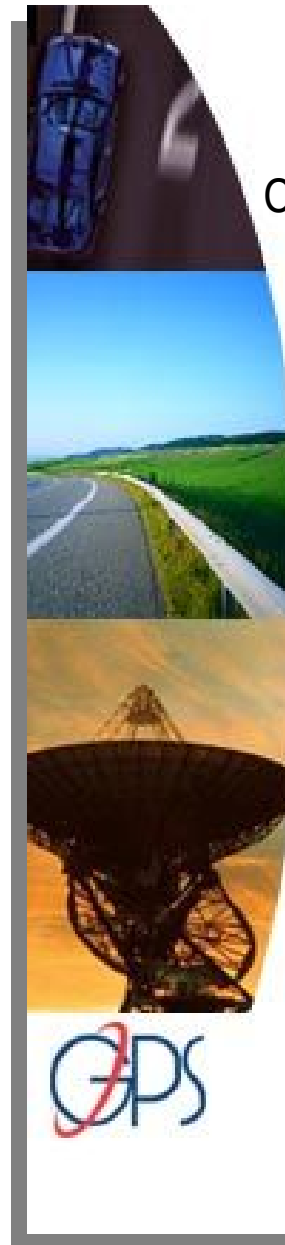
Made in China ● HK SANFUL



GPS/SMS/GPRS
CAR ALARM&TRACKING SYSTEM

User Manual

Model: F-900G/S



Catalogue

1. Technical Specification.....	2
2. Feature & Functions.....	3
3. Operation.....	4
4. System Setup.....	7
5. Installation And Wire Diagram.....	12
6. How To Search Your Vehicle Position.....	18
7.Common Problems and solutions.....	22

GPS/GSM CAR ALARM &TRACKING SYSTEM

1. Technical Specification

No.	Article	Technical Data
1	Position Mode:	GPS (With GPS SiRF-Star III chipset)
2	Data Communication Mode	SMS
3	Frequency Range (MHz)	900/1800 or 850/900/1800/1900MHz
4	Supply voltage	12V DC
5	Supply range	10~24V DC
6	Standby current	≤150mA
7	Static current:	≤ 30mA
8	Peak Current:	≤ 300mA
9	Work Temperature:	-20~70℃
10	Working humidity:	20% ~ 80%
11	Size of the Mainframe:	14.5×8.5×3.5 CM

How to recode the Transmitter

In disarm status, open the car door, then switch the ignition key between ON & OFF positions for at least 15 times. When the main unit's LED turns on, the main unit will send out one sound "Bi", it means that the system is in programming status. In the next 10 seconds, please press the any key on the transmitter, if you can hear "Bi Bi" sounds, it means that the transmitter has been programmed. In the second 10 seconds, you could program the second transmitter with the same process. If there is no any signal from the transmitter in 10 seconds, then the system will automatically quit out programming status, and send out 3 sounds "Bi Bi Bi"

2. Feature & Functions

2.1 real-time monitoring the vehicles

Car owner can directly monitor everything in the car, including sounds of people talking, Noises of damage, etc, after input the password. He/she can provide information to guard the car against theft and ask for help without anyone knowing it.

2.2 Alarms will be given to users when the car is dragged or towed illegally

If the car is shocked terribly, for example, external shock, collision, drag and tow, hit etc, short messages will be sent by the system to the alarming telephone. Car owner will receive the messages in 5 seconds, and then deal with the situation in time.

2.3 illegal Door-opening alarming

System will automatically generate alarms to the alarming telephone and the centre, if car doors are opened illegally (Not open by remote control). It will tell everything to the person who answers the phone whether it is shocked or car doors are open illegally.

2.4 Remote control the central control lock.

It can match with the products to achieve alarm activation, alarm disarmament, etc.

2.5 brake and lock

In the process of open the door—close the door—drive the car, system will automatically lock the car in the first brake if the car doors are not closed suitably.

2.6 lock and unlock the door by telephone

Telephones can be used to open and close the door, set arm and disarm status.

2.7 Exactly position the car by SMS or telephone

Position the car by SMS or calling monitoring center at any time. Then he/she will receive the position report like that: your car is on XX road, near XX hotel, orientation XX meters, precision 25*25 meters (work on software). The time interval is about 10 seconds between the information sent and received.

2.8 locate the car by internet.

Locate the car by our car checking system in the internet at anytime. You just need input your user name and your vehicle license number to check the exact position (work on software).

2.9 Remotely cut off power and gas supply.

If the car is in danger situation, you can send SMS to cut off power and gas supply. Then the car will be stopped and can't be started..

2.10 Emergency button

When the driver in danger situation, he/she can press the emergency button, then the system will automatically send information to the emergency alarming telephone.

2.11 Over speed alert

When the car is driving over the preset speed, a report will be generated.

2.12 Geo-fence

Car owner can set up zones for the car. When the car is out of these predefined zones, a report will be generated.

2.13 Auto position by interval time.

2.14 Movement alert setting.

2.15 Main power cut off alert.

There is Back-up battery built inside the device, when the main power be cut off, a report will be sent to car owner's cell phone.

Remark: The Monitoring software and electronic maps need extra orders.

3. Operation

3.1 Remote control



Arm



Disarm



Emergency help button



Search

3.2 Operation

Operating mode	GPS/GSM System Status	Indicator Status	Vehicles Status	Vehicle owner short No te/telephone
1. Press  Arm key For 0.5 seconds. 2. Use car owner phone to call vehicle GSM SIM card. 3. Use any phone to send Arm message to vehicle GSM SIM card	arm	1. Successful arm, indicator quickly flash twice in one second 2. If alarmed, the indicator flash slowly once a second	1. The turn light would flash once, siren sound once.	1. No message in Normal status. If use car owner phone to call the system to arm, the system will call back to car owner, hang up after several sounds. No expense caused
			2. If vehicle door didn't closed well after door lock, the siren and turn light would remind for 17 seconds.	2. The vehicle door is No t closed well.
			3. If key in ON position, it can only lock	3. No message
			4. After forewarns for 10 seconds, the vehicle vibrates due to external force, the vehicle light would glitter and siren sound.	4. After the vibration alarming, you would receive vibration and position message.
			5. Open the door and ignite after forewarn, the vehicle light glitters, and siren sounds	5. show message of door No t closed well, ignition alarming, and vehicle position
Pres  disarm key on the remote control for 0.5 seconds 2. Use car owner	disarm	1. The indicator won't light after	1. The vehicle turn light flashes twice, and siren sounds twice.	
			2. If No t opening the door to enter the vehicle within 45 seconds after disarm, the system would auto "Arm" (the second	

mobile phone to call vehicle GSM SIM card. 3. Use any mobile phone to send Arm command message to vehicle GSM SIM card instruction to the vehicle		disarm.	anti-burglary).Open the door to cancel Arm.	1、2、3 No message
		2. If there has been a alarming, the indicator flash quickly once a second	3. If key in ON position(ignition status), it can only unlock	
			4. If it has already alarmed (except robbery and forcibly disable vehicle), the vehicle turn light would flash twice, siren sounds twice, and door unlock, and alarming cancelled.	4. show message of disarm successfully and position.
			5. If already alarm the robbery alarming or vehicle stops, it is invalid to use remote control to cancel Arm. You need to ask center to cancel.	5. No message
Press emergency help button  on remote control for 3 seconds	Emergency help(can use this function in both Arm or Disarm Status)	The indicator flash quickly 5 times, after alarming, the indicator would slowly flash once a second	The siren sounds quickly 3 times, turn light flash quickly 3 times.	show message of emergency help and position. The system would send a alarming message to car owner and center once per 20 minutes until the alarming is relieved.

Press  Search button on the remote for 0.5 seconds	Search the vehicle	The indicator flash once	The vehicle turn light flash 5 times, and siren sounds 5 times.	No message
Press the robbery button of the system for 5 seconds	Robbery alarming	The indicator doesn't light.	The vehicle turn light doesn't flash, siren doesn't sound. It is "voiceless alarming".	No message. The robbery alarming only alarm to designated center. The system would send a alarming message to center once per 20 minutes until the alarming is relieved.

4. System Setup

4.1. System Setup

Prepare for testing:

- 1) Prepare a valid GSM SIM card; insert it into the SIM card slot on the main unit.
- (2) Install the system according to the wiring diagram
- (3) Setup the system according to the SMS command.
- (6) User could send out the command via SMS to test the function, include sound monitor, and position the car, change password and so on.

4.1.1 Send the following message to set up system.

CEN666666 * 10owner mobile phone number * 20 * 30center phone number *

(666666 is the initial center code. CEN (in capital) is control command code. No any space in the message)

For example, CEN666666 * 10135666666666 * 20 * 3013700000000 *. It means the owner phone number is 13566666666 and the center number is 13700000000, which the system can identify. Send this message to vehicle SIM card by owner's mobile phone, there is the same message will be sent back to owner's mobile phone, it means that set up successfully.

4.1.2., For foreign customers (not in China), please continue to do the next step.

You need send the message CEN666666#77:81 to vehicle SIM card.

4.1.3 Arm/disarm by car owner's phone

- a. Arm: call the system SIM card by owner's phone, Hang up after get through for several seconds. If the device calls back. It means arm successfully.
- j. Disarm: call the system SIM card by owner's phone, Hang up after get through for several seconds. If there is No call back, means disarm successfully, and the remote control is also in disarm status.
No expense caused

4.2. SMS Control command

The user can control the vehicles by command

The format of the command is: user's password (11111) + control code (XXX)

The default password is 11111.

XXX is the control code; it must be capital letter.

There is No space between the user password & the control instruction.

◆ **11111PSWnnnnnn**

This command is for password changing. The length of the user password is 2~6 digits. Users are suggested to change to the new password in the first time.

Example: User send the SMS "11111PSW1234" to the system SIM card number, and gets the confirmation SMS 11111PSW1234 in 10 seconds. It means that the user password has been changed to 1234.

◆ **11111ARM**

Arm the system. The system will send back a message of current position of vehicle.

◆ **11111DSM**

Disarm the system. The system will send back a confirm message of current position of vehicle.

◆ **11111STP**

Disable vehicle. The system would send back a message of current position of vehicle.

◆ **111111RES**

Able vehicle (Center stop & robbery alarming can be relieved by center only), The system would send back a message of current position of vehicle.

◆ **111111CHK**

Inquiry car position information.

The system will send back a SMS, with Arm /Disarm state, LONG, LAT, speed, direction.

◆ **111111MON***

Sound monitor around the car.

The * is the telephone which is used to monitor the voice. When user send this command to the system, the system will call back the telephone *, user could listen in the voice around the car upon picking up the call.

◆ **111111ZD***

If * is 1, the instruction 111111ZD1 is to enable the shock sensor

If * is 5, the instruction 111111ZD5 is to disable the shock sensor

◆ **CEN666666#4**

When you have pressed the SOS button, you need to send this command to disarm the car. For the SOS alarm you can not disarm the car by remote control and 111111DSM command.

4.3 Auto position function

1) Command: **CEN666666#51:11**

2) Command: **CEN666666#16:X,0**

X is the interval time(0 to 255)

1)if X is set in 0,there is no SMS be sent back.

E.g. **CEN666666#16:10,0** there is SMS be sent back every 10(seconds)

Remark: Please set up both command one by one.

4.4 Geo-fence function

Command: **111111FENx(XL:a,YL:b,X:c,Y:d)**

Or **111111FENxXL:A,YL:B,X:500,Y:500**

If x=0, deactivate the function of geo-fence, x=1, activate the geo-fence function

XL: a, a is latitude(degree), the range of the value is (0-90)

YL: b, b longitude (degree), the range of the value is (0~180)

X: c, c is the distance of latitude (Meter)

Y: d, d is the distance of longitude (Meter)

Format of commands:

111111FEN? Check the setting of geo-fence

111111FEN0 Deactivate the Geo-fence

111111FEN1 Activate the geo-fence, using the parameters of the previous setting

111111FEN1() Activate the geo-fence, using the latitude & longitude of present location, the distance of latitude & longitude are 1000 meters .

111111FEN1(X:c) only change the distance of latitude, the other parameters keep the same.

111111FEN1(Y:D) only change the distance of longitude, the other

parameters keep the same.

The function of geo-fence does not have relation with Arming or Disarming.

Example: I want to activate the fence, if the center's latitude is 23.1400, longitude is 113.4500, if the fence is a circle with Radius of 500meters, then the SMS instruction is: **11111FEN1(XL:23.1400,YL:113.4500,X:500,Y:500)**

4.5 Movement alert

Command: **11111MOVx**

X is 0, to deactivate the movement alert

X is 1, to activate the movement alert, using the latitude & longitude of present location.

11111MOV? To check the center's position.

Once the system is arm, the movement alert will automatically be activated.

Once the system is disarmed, the movement alert will automatically deactivated.

In arming condition, you could send 11111MOV1 to activate it & test the function

4.6 Speed alert

Command: **11111SPD:X**,

x is in KM/H , maximum value is 320KM/H

(For example: 11111SPD:60, if the speed is over 60KM/H, it will send SMS to warn you)

Command: **11111SPD:? ,**

to check the setting of the over speed

Note:

1) Use a new GSM SIM card, as all info in this card would be automatically cleared in this alarming system.

2) Use a GSM SIM card with service of Incoming Telephone Number Display.

5. INSTALLATION And Wire Diagram

The GPS antenna chooses the position and is fixed

5.1 The GPS antenna installs when should guarantee the receive face on (sky), also place above does not have the metal to cover, shield

5.2 The GPS antenna suggested installs the position

Underneath first windshield hideaway

First gauge board (epidermis for nonmetallic material quality) underneath hideaway

Underneath the latter windshield plays the part of under the board

The first bumper (epidermis is nonmetallic material quality)

Attention: If the windshield will glue has the thermal insulation layer to reduce the GPS receive signal, will create GPS to work abnormally, this time please will replace the GPS antenna to install the position.

5.3 The GPS antenna may adsorb on the metal object, or glues reliably with the width sponge force two-sided rubber, please note the GPS antenna not to be possible to tear down the outer covering.

5.4 The GPS wire hideaway and pulls to the main engine nearby, antenna plug insertion main engine corresponding plug.

The GSM antenna chooses the position and is fixed

1) The GSM antenna suggested installs the position

Underneath first gauge board hiding place

Underneath the latter windshield plays the part of under the board

Underneath chair hideaway

2). sweeps the GSM wire hideaway pulls to the main engine nearby, antenna plug insertion main engine corresponding plug.

Attention: The GSM antenna may not to the GPS antenna juxtaposition, also the wire is sure not mutually to twine, avoids disturbing, is far away the sound box as far as possible Central lock System..

3). Choose the main unit position and fix

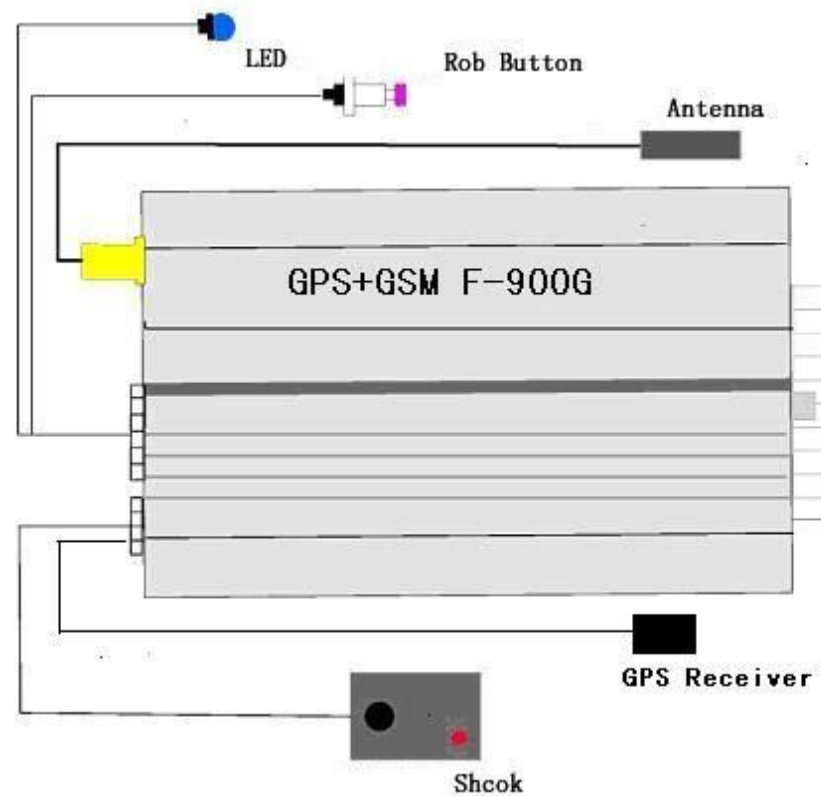
To avoid thief's damage, the main unit position should be concealed, avoid placing together with the emission source ,such as reversing radar ,anti-theft system and other car communicating equipment; can use screw or strong double-sided adhesive paste to fix.

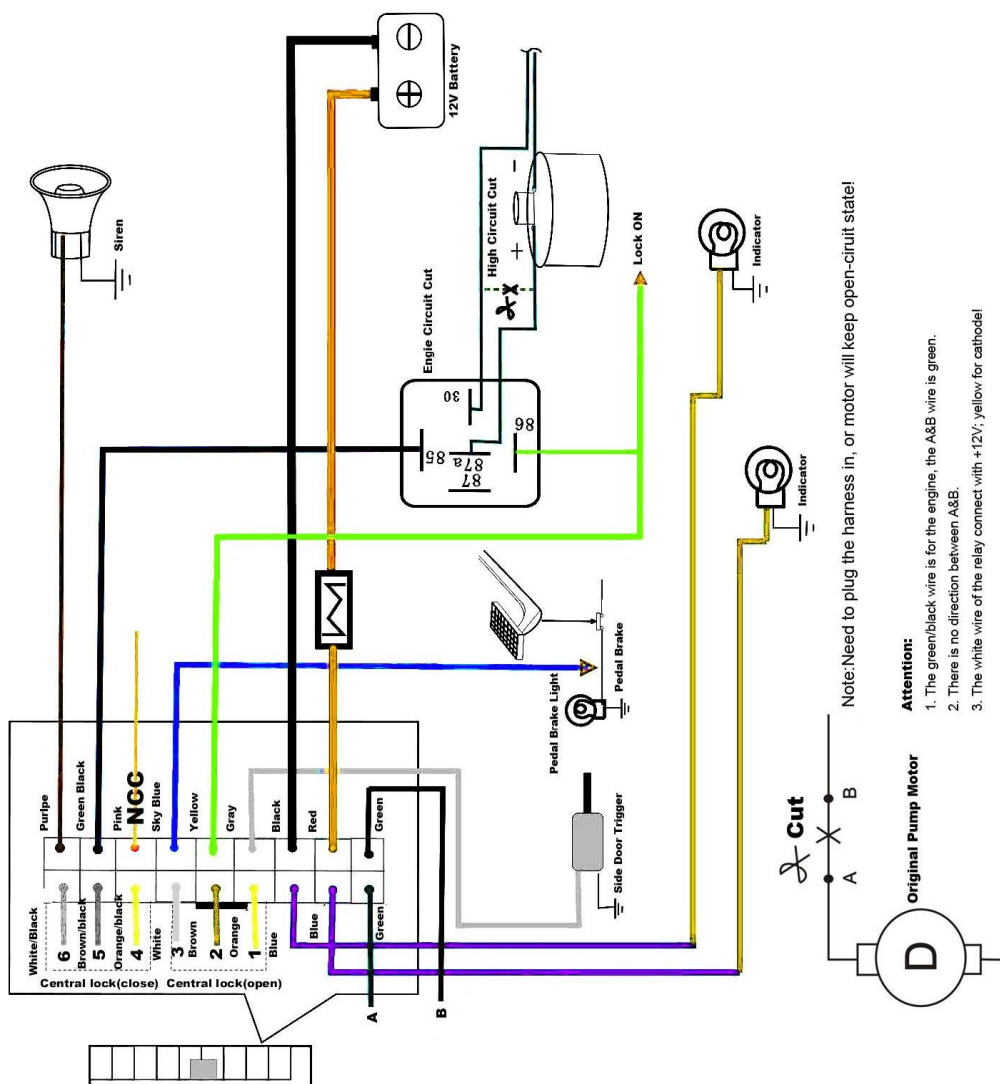
Suggesting installing positions:

- In the dashboard before the host seat
- in the dashboard before the vice-seat
- in the centre console of the car

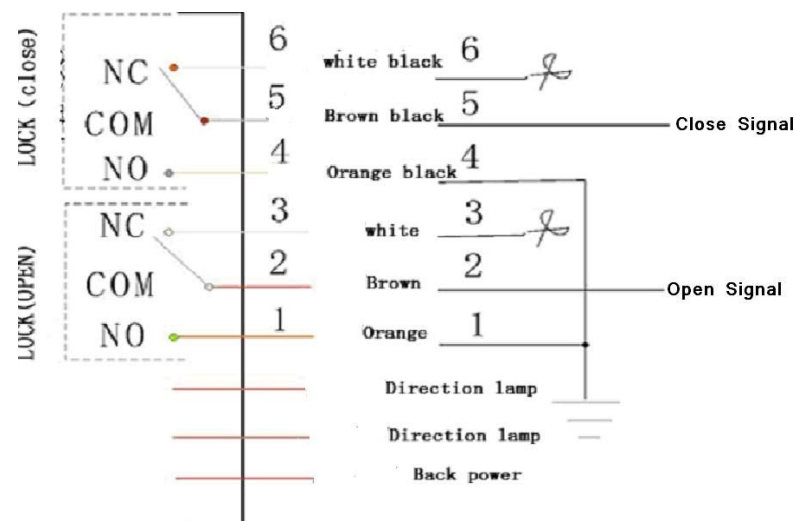
Note:

We suggest that gps terminal will install by the professional people.

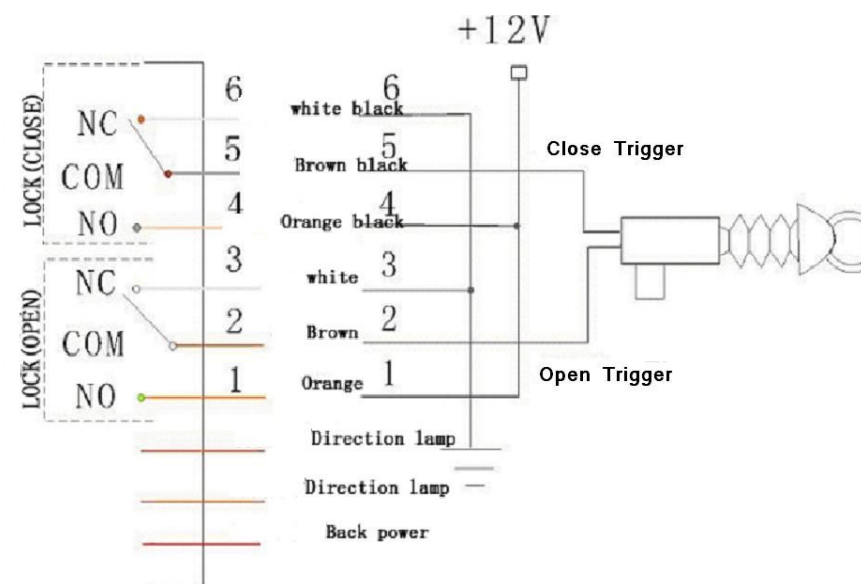




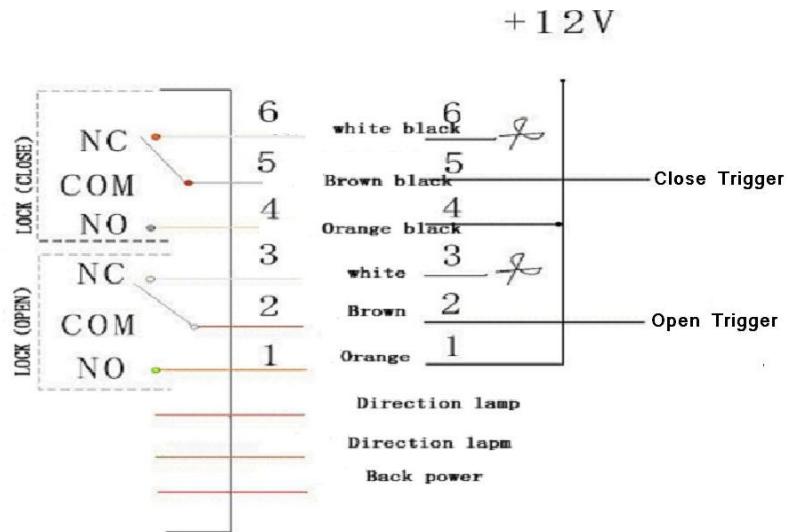
Negative Trigger



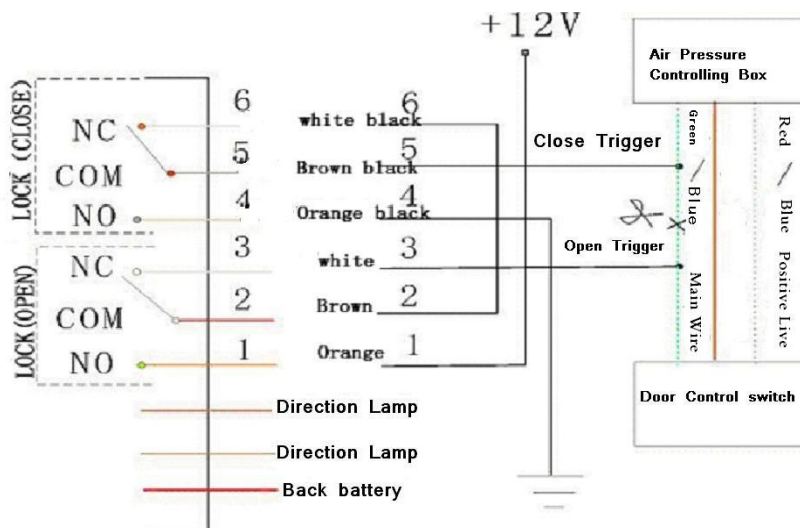
The Positive and Negative Trigger



Positive electrode trigger



The barometric pressure locks the wiring



6. How To Search Your Vehicle Position

5.1 If you haven't open gprs feature please visit this online software and enter Longitude and Latitude to Search Position.

[Http://tracking.sanful.net](http://tracking.sanful.net)

For example:

if you input inquiry command: "11111CHK" to SIM card number of your GPS/GSM car alarm system, you would get a message "System Armed, Engine Off! Door Closed! vehicle position: 272602B4,A,X+2.29494,Y+48.85800,0.21.S.108.12D" within 10 seconds.

Then enter the longitude, latitude you gained to online software, then click the "Locate" you will know the position of your vehicle.

Sanful GPS Tracking System

Time: 2010.2.25 11:44

Login Your GPS Tracking System

User name: demo

Password:

Go...

GPS Tracking

Search Position:

Please enter:

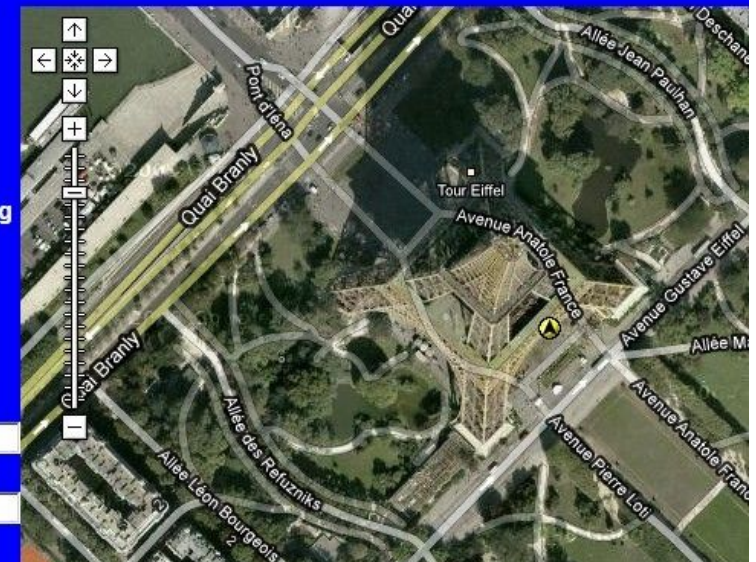
Longitude

2.29494

Latitude

48.85800

Locate



Note: If the Longitude and Latitude is "W" or "S" please add "-" before the datas.

6.2 If you want to use gprs feature to tracking your car please go on the following steps.

6.2.1 Send this command to your device:

111111WWW: IDN: str; IPN: str; APN: str; COM: str; RPT: x;

For example:

111111WWW: IDN: 56895032557079; IPN: 58.218.211.213; APN: CMNET; COM: 7020; RPT: 6;

Attention:

IDN: this is the IMEI number that fill the last 14 numbers; (you can see the IMEI on the device)

IPN: the server IP;

APN: your sim card APN Name,User ID,Password;

COM: the server port;

RPT: Set the GPRS upload time,which 1 means 10s;

When you send this command, you will receive the same SMS which means it set success.

Please attend this " ; ".

6.2.2 Send this command to your device:

111111LOG:4:1,8:1,

4:b=0,no need check CRC,b=1,need check CRC.

8:b=0, Close GPRS;b=1,Open GPRS

6.2.3 After that please send this command to your device:

111111RUN:5:0,

Note:

111111 is your device password, if you have changed, you need change it to your password.

6.2.4 After you set the gprs feature successful, please you can go to the website to tracker your cars.

Website <http://121.37.60.38/webgps>

Login user name and password please ask your administrator.

6.2.5 After Login the online GPS Tracking System, click 'switch list', there's a vehicles list, you can click 'locate' to position the vehicle.

7.Common Problems and solutions

problems	possible causes	solutions
Remote control can not be used	Battery shrapnel rust	Clean the rust
Remote control lamp can not flash	Battery sepatate	Check the battery
The remote distance is not enough	Battery no power	Change the battery
Distort report	Car door is open	Close the door
	Door sensor broken	Remake
	Remote control is block the keys	Remake remote control
Indicator flash slowly, can not be relieved	Anti-robbery button be pressed	sms: 111111RES to system SIM card
Mobile phone can not recieve the message	SIM car no money	Add money
	Car owner phone changed	Re-setup
	Too many short messages	Delete message